

IN THE SPECIFICATION

Pages 1-2, the paragraph bridging these pages from page 1, line 22 to page 2, line 9, replace the paragraph with:

At the ends of passages, electrodes are provided. Every All of the passages are filled with buffer solution first and liquid sample is injected at one end of the sample inlet passage. Thereafter the liquid sample is introduced into the passage by applying a voltage at the level of approximately few kilovolts between the electrodes placed at the both ends of sample inlet passages, whereby the introduction of liquid sample into the passage for electrophoresis completes. By applying a voltage of approximately few kilovolts to the electrodes placed at the both ends of the passages for electrophoresis the liquid sample introduced to the passage is separated by the electrophoresis phenomenon. The time required for the separation is approximately 10 seconds.

Page 4, the third full paragraph, lines 15-18, replace the paragraph with:

In addition, the present invention provides a liquid sample cassette for use in an electrophoresis separation

comprising a wafery part (wafer-shaped part) having passages fulfilled with a solution, attached to a removable holder.

Pages 4-5, the paragraph bridging these pages from page 4, line 19 to page 5, line 8, replace the paragraph with:

In addition, the present invention provides a sample analyzing system comprising a capillary electrophoresis system and an analyzer. The capillary electrophoresis system includes a wafery part having passages for flowing a solution, a body having a structure for relatively moving the wafery part in setting by maintaining the wafery part in a removable configuration. The body further comprises: first and second electrodes for applying a voltage across the passages in the wafery part to perform an electrophoresis separation to extract the solution through an end; and first and second buffer solution reservoir conductive to the solution in the passages in the wafery part at a specific position for fulfilling buffer solution on and around both the first and second electrodes. The analyzer optically detects the solution having electrophoresis separation performed by the capillary electrophoresis system to analyze.

**Pages 5-6, the paragraph bridging these pages from page 5, line 9 to page 6, line 1, replace the paragraph with:**

In addition, the present invention provides a sample analyzing system comprising a capillary electrophoresis system, an ion source, and a mass spectrometer. The capillary electrophoresis system includes a wafery part having passages for flowing a liquid solution, and a body having a structure suitable for maintaining the wafery part in a removable configuration and for relatively moving the wafery part in a setting configuration. The body includes first and second electrodes for applying a voltage across both ends of passages of the wafery part to extract a solution from one end by electrophoresis separation, and first and second buffer reservoirs conductive to the solution in the wafery part at a specific position, for fulfilling buffer solution on and around the first and second electrodes. The ion source is connected to one of buffer reservoirs in the capillary electrophoresis system to ionize the solution flowing through the wafery part into gaseous ions. The mass spectrometry performs mass analyses of the ions produced by the ion source.

**Page 8, the second full paragraph, lines 10-15, replace the paragraph with:**

As shown in Fig. 1, the passages 2 (or capillaries) are fulfilled with a liquid solution. Because of the fine cross-sectional area of passages 2 the solution is likely to be sucked therein due to the capillarity, so that the solution thereby will fill the passages 2 easily. However, if needed the solution may be loaded by means of a forced suction.

**Page 10, the first full paragraph, lines 7-12, replace the paragraph with:**

As can be appreciated from the foregoing description, since the liquid sample 21 can be introduced in an easy way into a plurality of passages 2 (or capillaries) of the wafery part 1, as well as since the wafery part 1 can be detached from the capillary electrophoresis system device in order to rinse the passages 2, the wafery part 1 may be suitable for reuse.

**Page 11, the first full paragraph, lines 6-13, replace the paragraph with:**

~~Each of~~ tThe first buffer reservoir 4 and the second buffer reservoir 5 of the device 3 of capillary electrophoresis system have a first electrode 6 and a second electrode 7, respectively, through which electrodes a voltage

will be applied through the first electrode 6 and the second electrode 7 to the conductive buffer solution 23 ~~to and~~ ultimately to the liquid sample 21 in the passages 2 (or capillaries) in order to perform an electrophoresis separation.

**Pages 12-13, the paragraph bridging these pages from page 12, line 17 to page 13, line 8, replace the paragraph with:**

Since a voltage will be applied between the first electrode 6 and the second electrode 7, an ~~electroosmosis~~ electroosmotic flow will be developed there between to move the entire liquid sample 21 in the passages 2 toward the second electrode 7. At the same time the fluid will undergo with an electrophoresis separation, several kinds of materials which are contained in the liquid sample 21 will be separated into bands. More specifically, an ~~electroosmosis~~ electroosmotic flow makes move of the liquid sample 21 in the capillaries 2 at a certain rate of flow, and specimen materials (charged particles or ions and neutral molecules and the like) contained in the liquid sample 21 to be moved are separated each from other by their mobility difference. As a result fluid containing isolated sample matter resides at some points along the capillaries 2, making several bands of sample

material isolated from within the solution. After some times the bands isolated each from other reach to the very end of the capillaries 2, ultimately in sequence.

**Page 14, the first full paragraph, lines 5-24, replace the paragraph with:**

Now referring to Fig. 3, there is shown an overview of the first embodiment of capillary electrophoresis system shown in Fig. 1 viewed from the topside. The wafery part 1 will be displaced in stepwise in the horizontal direction (direction of the drawing plane) by means of a stepping motor and the like. In the embodiment shown in Fig. 3, the wafery parts 1 are placed separated apart each from another at a regular interval. By moving one channel at a time by an even distance at every regular intervals, a voltage will be applied across the first electrode 6 and the second electrode 7 to form an ~~eleetreesmosis~~-electroosmotic flow in one capillary, so that the liquid sample 21 contained in one capillary (passages) 2 will be moved toward the second electrode 7, then at the same time to isolate by the electrophoresis several kinds of materials contained in the liquid sample 21 into bands. Those materials (sample molecules) isolated into bands may be analyzed in such a way as by optical analysis such as the

fluorescence light detection or optical density (OD) measurement as have been described above, or by transforming into gaseous ions by the sonic splay ionization technique to be analyzed in a mass spectrometer installed in a vacuum chamber.

**Page 17, the first full paragraph, lines 8-13, replace the paragraph with:**

As shown in Fig. 5, the structure of the ion source 9 is just like a nebulizer. The liquid sample isolated by the electrophoresis by the ~~electroosmosis~~-electroosmotic flow will be loaded into the silica capillary 10 having an inner diameter of approximately 50 micrometers. One end of capillary 10 is inserted into an orifice 11 of the ion source 9.

**Pages 17-18, the paragraph bridging these pages from page 17, line 21 to page 18, line 6, replace the paragraph with:**

The solution loaded in the capillary 10 is sucked by the sonic gas flow. The flow rate of sucked flow may be higher than the flow rate of ~~electroosmosis~~-electroosmotic flow in the passages 2. Therefore, to avoid this, the ends of the passages 2 are placed at a very narrow distance to the

capillary 10 of one millimeter or less so as not to directly connect to the capillary 10. In this arrangement the exact amount required of buffer solution in the second buffer reservoir 5 is sucked into the capillary 10 while preventing the liquid sample 21 in the passages 2 from being spilled out in order not to affect the electrophoresis via one end of the passages 2.

**Page 20, the first full paragraph, lines 2-3, replace the paragraph with:**

The sample holder 11 may be preferable made of a fluoroplastic resin, ~~which may absorb scarcely matters.~~